AN INVESTIGATION INTO RELATIONSHIPS BETWEEN STUDENT TEACHERS' PHILOSOPHIES OF HUMAN NATURE AND THEIR VERBAL BEHAVIORS IN ELEMENTARY CLASSROOMS

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CHAPTER I

INTRODUCTION

The Problem

Investigations into the question of how to make schools a better place for children have occupied educators for many years. There have been numerous research studies done in this area that seem to indicate that the teacher determines the kind of impact school has upon the child. If this is true, there are several questions to be answered: Which teacher behavior affects pupil outcome? How can this teacher behavior be measured? What causes different teachers to behave differently in the classroom?

The teacher influences the pupils in her classroom in various ways. Whether standing in front of the class, commanding the attention of all the pupils, or sitting quietly in a corner working with a small group, the teacher is at the center of all activity.

The actions of the teacher set a pattern of behavior that spreads throughout the classroom; the behavior of the teacher, more than any other individual, sets the climate of the class, even when the teacher is out of the room (2).

The teacher has the responsibility for creating an atmosphere in the classroom that provides a rich environment for learning. This can be done by the teacher's total acceptance of the pupil, as a learner and as a person. This teacher acceptance provides the security and trust needed by the pupil to have the courage to make his own decisions.

More research is needed on how teachers influence pupils, but this can be assessed only when teachers are studied individually and not lumped together as a faculty. Too many times research has been done with schools, where the range of effectiveness of teachers varies from one extreme to the other. Studies are needed that systematically record what teachers do in the classroom and relate these teachers' behavioral data to measures of pupil outcomes. In this way, a data base can be built, specifying the relationships between teacher behavior and pupil outcomes (10).

Probably the most significant weakness of teacher effectiveness research has been its failure to observe teachers in the process of teaching (30). Many studies use questionnaires or interviews that gather only opinions and do not produce information about teacher behavior in the classroom.

The ultimate goal of the study of teacher influence is to achieve understanding of teacher-pupil interaction and, in particular, to specify conditions in which learning is maximized (27).

Understanding can be gained by direct observations of teachers as they teach in their own classrooms. One of the best ways to collect data about teacher behavior is by listening to them talk.

Amidon and Hunter (4) state that

> It is axiomatic that the teacher is the most influential person in the classroom. Since talk is such a vital part of teaching, and since the teacher's verbal behavior directly influences pupils' behavior, it follows that teacher talk is tremendously important in education (p. 2).

A teacher's verbal behavior may be examined by analyzing the interactions between the pupil and teacher. Because the interactions of teacher and pupil are so easily observable, they have been the focus of a number of studies of the nature of teaching.

Since teachers play a significant part in determining the educational environment, it is important that we have some expectations about the nature of their behavior. We need to be able to predict with some accuracy how prospective teachers will behave in their classrooms after they become teachers (22).

One way this might be done is by assessing the beliefs and attitudes of future teachers. There is the expectation that an understanding of persons' attitudes increases the understanding of their behaviors. Hopefully, this might help explain why teachers behave as they do.

The few studies there are of the teaching process have focused on the behavior of teachers, the reasons for

the behavior often being assumed. Teachers are not robots, however. Their behavior must be seen as a selection of possible alternative behaviors from a range of options (60).

Each person has a philosophy of human nature or a set of assumptions about what people are really like, particularly about the way he deals with other people. We all must make certain assumptions in order to be able to interact with others (69).

The literature of humanistic psychology continually expresses the importance of the relationship between how persons (teachers) feel about the nature of man and their interpersonal behavior with him (the pupil) (13). Combs (19) states,

> The behavior of teachers, including the things they do with, to, or for children, is dependent upon their beliefs about the nature of children. The goals they see, the judgments they make, and even the experiments they are willing to try are influenced by their beliefs about the very nature of man and his capacities. The beliefs they hold about people can restrict or enhance potentially great and new possibilities never dreamed of before. They mean the difference between teachers who believe that children "can," and will try to teach them, and those who believe children are "unable," and give up trying. No beliefs will be more important to education than those teachers hold about the nature of man and the limits of his potentials (p. 95).

If we look at the way teachers teach, we may discover signs of what they believe about how the educative process should be carried on and from this we may discern clues as to what they believe about the world, knowledge, and human values (47).

It was the purpose of this study to determine if the philosophy of human nature possessed by elementary student teachers was related to their verbal behaviors as teachers in the elementary classroom. This was done by using the Philosophies of Human Nature Scale (PHN) to measure the beliefs of elementary school student teachers at Oklahoma State University, then observing a sample of these student teachers, recording their verbal interactions with pupils, and determining if there was a relationship between their beliefs and their verbal behavior as teachers.

Previous Research

The related research presented here has been organized into three sections: first, a review of some of the studies that sought to determine the ways in which certain teachers' behaviors affected their pupils; second, the studies that pertained to student teachers; and third, those studies relating to the philosophy of human nature.

Teachers' Behaviors Affect Their Pupils

Good and Brophy's study (31) showed that a simple consultation strategy for presenting teachers with feedback about their behavior was effective in positively changing teacher behavior toward students. This change caused the pupil behavior also to be changed positively.

Measel and Mood (43) attempted to investigate relationships that exist between modes of teacher verbal

influence and the sophistication of pupil thinking and to examine the relationships that exist between the levels of teacher and pupil thinking. Modes of teacher influence and teacher and pupil cognitive data were collected from fifteen second grade classrooms using an 18-category verbal interaction observation system. This study showed that when teachers function at the higher levels of thinking their pupils tend to function at those levels.

The study by Davidson and Lang (21) related children's perception of their teachers' feelings toward them to self-perception, academic achievement, and classroom behavior. A checklist of Trait Names, consisting of 35 descriptive terms, was given to 89 boys and 114 girls in grades 4, 5, and 6 in a New York public school. The children were rated by their teachers for achievement and on a number of behavioral characteristics. The following are a few of the findings:

> The children's perceptions of the teacher's feelings toward them correlated positively and significantly with self-perception. The child with the more favorable self-image is the one who more likely than not perceived his teacher's feelings toward him more favorably. Also, the more positive the children's perceptions of the teacher's feelings, the better was their academic achievement and the more desirable their classroom behavior as rated by the teacher (p.115).

Edeburn and Landry's research (24) proposed that a teacher's self-acceptance is related to the development of good self-concepts by students in grades 3, 4, and 5. The subjects included 16 teachers and 295 pupils. An

F-test was performed to test for a relationship between teacher's self-acceptance and student's self-concept. The evidence suggested that the selection of self-accepting teachers at the elementary school levels is critical to the development of children's self-concept.

Amidon and Flanders (2) reported that a study done by LaShier found that pupils of student teachers who had been classified as indirect in their teaching behaviors achieved more than pupils of student teachers who had been classified as direct. In his study, he found that the indirect student teachers used four times as much acceptance of feeling and twice as much praise following student-initiated ideas as did direct student teachers.

In a study of teacher effectiveness, Flanders (28) found that teachers' use of indirect verbal behavior such as acceptance and clarification of student ideas and feelings and encouragement and praise were associated with more positive attitudes toward school and higher student achievement in junior high school social studies and mathematics classes. He also found that teacher criticism, rejection, and extended verbal directness were associated with less positive attitudes and lower student achievement.

Using the theoretical formulations of Rogers (53), Truax, Carkhuff, and Berensen devised and validated instruments and procedures to measure levels of interpersonal conditions. It was established that levels of interpersonal conditions offered in the classroom significantly and

positively related to such pupil outcomes as cognitive growth measured by standardized tests, student performance, decreased truancy rates, grade-point averages, and process variables such as levels of cognitive thinking and amount of pupil initiated talk.

The findings from Walberg's study (65) suggested predictable relationships between teachers' personalities and classroom climates. Needs for both dependence and power, order and change on the part of the teacher make for a formal, subservient climate with little animosity among class members. Teachers with needs to interact with others tend to have controlled, goal directed classes. Students in these classes may feel less personal intimacy with one another because the teacher may monopolize the interaction in the groups. The personality patterns of the teacher, her needs, values, and attitudes predict the climate of her classes, according to this study.

Amidon and Flanders (2) reported that a study done by Soar showed that indirect teaching produced greater growth in reading comprehension in elementary school pupils than direct teaching. He found that pupils who had been in classes taught by indirect teachers also advanced an average of five and one-half months in reading comprehension during the summer vacation, while pupils who had been in direct teacher's classes advanced three months in the same period. These results seem to indicate that the influence

of the teacher on learning persists even after the formal classroom experience is completed.

Student Teachers

Spodek (59) reported a study done by Sperson and Joyce involving nineteen student teachers and cooperating teachers. Observations were made and recorded of the student teachers' and cooperating teachers' classroom behaviors. The evidence supported the idea that the cooperating teacher substantially influences the behaviors of the student teacher. The influence of the cooperating teacher was felt during the very early weeks of student teaching, rather than being the result of the slow, cumulative impact. The cooperating teacher apparently is a powerful influence for good or for ill.

Campbell and Williamson's study (12) was done to assess the extent to which student teachers became more or less dogmatic during their student teaching experience. The subjects were 78 secondary school student teachers and their cooperative teachers. The Rokeach Dogmatism Scale was administered to the student teachers before and after student teaching, while cooperating teachers completed the instrument prior to receiving their student teachers. Findings of this study suggested that experiences during student teaching caused the student teachers to become more dogmatic, therefore suggesting that teacher preparation institutions should seriously consider a revision or modification of curriculum, the goal of which would be to

promote a development of greater openness, sensitivity, and objectivity in prospective teachers. This emphasis on the affective domain appears essential if professional teachers are to assume a role that demands these teacher characteristics.

A study done by Bailey (7) was designed to determine whether interaction patterns demonstrated during student teaching changed or were modified significantly after two years of independent classroom experience. The sample included nine teachers from thirty randomly selected secondary social studies teachers. Observable verbal and nonverbal classroom interaction patterns were recorded with the Interaction Analysis System and the Nebraska Skill Analysis System. Some of the more important teacher behaviors observed during independent classroom teaching included using more humor during information giving or lecture and more reinforcing of anticipated student comments. More student initiated comments were occurring and the teachers were taking more time to reinforce and build on student ideas.

In a study of the effect of teaching interaction analysis to student teachers, Hough and Amidon (35) found that student teachers who were taught interaction analysis were seen by student teaching supervisors as being more effective in their student teaching than student teachers who had not been taught interaction analysis. They also found that student teachers who were taught interaction

analysis used significantly more accepting verbal behavior and questions and significantly less criticism than student teachers not taught interaction analysis.

Hough and Ober's study (36) included five groups of student teachers with 84 subjects in each group. The subjects in the treatment groups who were taught interaction analysis were found to use, in their teaching situations, significantly more verbal behaviors that have been associated with higher student achievement and more positive student attitudes toward their teachers and school. These same subjects were found to use significantly fewer behaviors that have been found to be associated with lower achievement and less positive attitudes.

Philosophies of Human Nature

Hopkins' study (34) indicated that teachers with favorable beliefs about human nature show non-verbal communication patterns that reflect a desire to permit the open expression of ideas in the classroom. Teachers with negative beliefs are more directive and restrictive in their non-verbal communications.

Hunt (37) did a study of personality variables and achievement in seminaries. He included the Philosophy of Human Nature Scale (PHN) in a long battery of instruments given to ministerial students at two seminaries. At one of the schools, significant negative correlations emerged

between the substantive scales on the PHN and the ability and achievement measures. For example, the trustworthiness subscale of the PHN correlated -.35 (significant at $p < .05$ or greater) with the Miller Analogies Test score, and -.30 with grade point average (GPA). Altruism on the PHN scale correlated -.44 (significant at $p < .05$ or greater) with the Miller Analogies Test score (significant at $p < .05$ or greater) and with GPA. Thus, students who believed that people in general were untrustworthy and selfish had higher ability scores, higher grade point averages, and higher ratings of effectiveness. This was contrary to a notion that a set of positive beliefs about human nature facilitates effectiveness. When the PHN and the Miller Analogies Test (MAT) scores were compared as predictors of academic success, the PHN measures were as highly related to academic success measures as the MAT score. In the case of the evaluation of future effectiveness, PHN measures were significant; whereas, the MAT score was not.

Claxton's study (15) involved giving PHN training to a group of adults and was aimed at developing favorable attitudes on specific beliefs of human nature. The results were favorable. There was an increase of positive beliefs about man as a direct result of specific techniques to affect their PHN. However, this study made clear that if significant changes in attitudes are to occur, explicit programs must be used to change them.

Young (71) and Kleeman (40) investigated the changes of major aspects of the PHN scale as the result of participation in sensitivity-training or human-growth groups. Young (71) studied the changes in PHN scores of 38 undergraduates who participated in a weekend T-group lab. He divided the subjects into three groups: those with extremely high PHN scores, those with extremely low PHN scores, and those with moderate PHN scores. He found that the T-group experience caused the positive group and the negative group to score higher on the PHN. The group with moderate PHN scores was not influenced by the T-group experience.

Kleeman's study (40) differed in length and content from the one used by Young. His study included 140 subjects from eight different colleges. Each student participated for one semester in a course directed at self-growth. The study indicated that the students had a significant change in their beliefs about human nature.

Altman and Castek (1) measured the effects of a semester of student teaching on philosophies of human nature. Their subjects were 121 elementary student teachers who were randomly assigned to two groups, labeled "experimentals" and "controls." Controls were tested before their teaching experience, and experimentals were tested at the end of their teaching semester. The results showed that those who took the PHN at the end of the semester had

more negative scores than did those who took it at the beginning.

Yeargen (70) administered the PHN to a group of student teachers on three occasions: at the beginning of their student-teaching semester, at the end, and four weeks after the end. When the scores obtained for the 39 student teachers before and after their student-teaching experience were compared, the only substantive subscale to show a statistically significant change was strength of will and rationality.

The major purpose of Brim's study (9) was to determine the effect of a teacher education program upon the attitudes of undergraduate students toward children at the beginning and end of the fall quarter. The Minnesota Teacher Attitude Inventory was given to 250 undergraduate teacher education students. Pre-test and post-test scores were compared. Thirty-two students who showed the greatest change in scores were interviewed in an effort to determine causes of change. It was found that student attitudes were changed while in the teacher education program by influences within and outside the program.

Theoretical Basis

The following section identifies the theoretical basis on which this study was done. Prior to this, for the purpose of clarity, terms that will be used throughout this report will be identified and defined.

Interaction Analysis: This is a technique for capturing quantitative and qualitative dimensions of verbal behavior in the classroom. It is the most appropriate method of determining teacher-pupil inter-personal relationships by systematically observing the verbal behavior of both teacher and pupils.

Philosophies of Human Nature: Philosophies of human nature are attitudes about people in general--attitudes that emphasize the social qualities of persons. They are expectancies that persons possess certain qualities and will behave in certain ways. While these attitudes may not be easily verbalized by the individuals who hold them, they seem to be learned early, held widely, and changed with difficulty. We all develop philosophies of human nature because other people play such a significant part in our environment that we must have some expectations about their behavior (68).

Pupil: The child who is attending elementary school.

Student Teacher: A student in the senior year of college who is in an elementary classroom under the direction of a cooperating teacher for the purpose of observing pupil and teacher behavior, performing routine classroom teaching tasks, and gradually assuming most of the roles of a teacher.

Teacher: The person who is fully certificated and regularly employed in a school system to instruct pupils.

Teaching: An activity that is an interactive process, which takes place between teachers and/or student teachers and/or pupils.

Major Assumptions

For the purpose of this study, the following assumptions have been applied:

1. The amount and type of verbal behavior by the teacher in the classroom influences the learning of the pupil in this classroom.

2. The use of trained observers is a reliable method for collecting classroom data on the verbal behavior of teachers and pupils.

3. Amidon and Hunter's Verbal Interaction Category System (VICS) is a reliable method for the classification of what is said by the teacher and pupil in the classroom.

4. The philosophy one holds toward the nature of man influences his interaction with others.

5. Wrightsman's Philosophies of Human Nature Scale yields normative data for determining the basic philosophies concerning the nature of man.

Influences Upon Children's Learning

Schools were created for children. Therefore, one of the goals of educational research needs to be that of finding out when children learn best. It is assumed that

students learn best when they feel positive about school and self and that children feel positive about school and self when the classroom climate is supportive and accepting.

> Loneliness and fears of inadequacy will be reduced in direct proportion to the efforts of teachers . . . to create a climate of trust and caring (52) (p. 42).

Whether the classroom climate is trusting and caring will depend upon the teacher and her behavior with the pupils. There is evidence that the preservice teacher's behavior can be influenced. The study of student-teacher behavior and the factors affecting this behavior can be a step towards bringing about more trusting and caring teachers.

Educators must determine which teacher behaviors encourage or hinder the pupil's learning. Mondale (44) stated,

> To learn well, a child must be genuinely respected and valued for who he is--himself, his culture and language, his family. . . . Yet our educational system frequently has great difficulty accepting and building upon differences (p. 78).

Teaching and learning involve interaction between the teacher and the pupil. The chain of this interaction starts with the behavior of the teacher, so this behavior is crucial to the learning of the pupil.

Knowledge about teaching effectiveness consists of relationships between what a teacher does while teaching and the effect of these actions on the growth and development of her pupils. Presumably, an effective teacher

interacts skillfully with pupils so that they learn more and like learning better than do students of ineffective teachers. From this point of view, teaching effectiveness is concerned with those aspects of teaching over which the teacher has direct control and current options (26).

The teacher is the most influential person in the classroom, as stated earlier. Therefore, one might also assume that the teacher's verbal behavior is the most influential tool. The literature repeatedly supports the contention that verbal behaviors of teachers as they teach and pupils as they learn can be identified and classified. The product of these verbal behaviors or patterns are reflected in the level of student achievement.

The teacher is continually interacting with pupils during the school day, and the quality of these interactions may be more important than the specific instructional practices used by the teacher. Teacher-pupil interactions serve many purposes. They are used to further instruction and to provide information about the child as well as communicate emotional support and assurance (60).

Verbal acceptance of a child's feelings may be an important variable in explaining exceptionally positive adult-child relationships. Paralleling the specific verbal expression of acceptance is the behavioral willingness on the part of the adult to follow the child's lead--to allow the child self-direction in behavior rather than

attempt to control his behavior (61). We can conclude that teachers possessing interpersonal facilitative skills may be expected to enhance pupil achievement and personal and social growth (53).

Next, we come to another important problem, schools of education. It is an impossible task to reach and change individual teachers all over the country without first changing the teacher training which these future teachers are receiving (42). Combs (20) felt

> The professional training of teachers must begin with the student's beliefs about people. . . . Student teachers need every possible help in the exploration and discovery of accurate and workable concepts of what people are like and why they behave as they do. . . . The ways in which a teacher behaves in the classroom will be affected by his purpose and beliefs he holds about what is truly important (p. 59).

This investigation is based upon the premise that student teachers' verbal behavior is a result of what they believe about the nature of man. If the teacher has distrust for the human being, then she feels she must cram this human being with information of the teacher's own choosing, lest he go his own mistaken way. If the teacher completely trusts the capacity of the human individual, then she can provide this individual with a multitude of opportunities, and permit him to choose his own way and his own direction for his own learning.

Rogers (53) stated,

> Tomorrow's educator, whether the humblest kindergarten teacher or the president of a great university, must know, at the deepest

> personal level, the stance he takes in regard to life, how his values are arrived at, what sort of individual he hopes will emerge from his educational organization, whether he is manipulating human robots or dealing with free individual persons, and what kind of a relationship he is striving to build with these persons. If he cannot answer these questions he will have failed not only his profession, but his whole culture (p. 95).

People possess assumptions about human nature; these assumptions are pervasive and influential and affect how we act in our everyday lives (68). A teacher's methodology reflects her basic assumptions. Consciously or unconsciously, every teacher makes decisions each day in terms of her underlying beliefs. The way in which she ascertains her objectives and then selects, structures, and teaches her content depends upon the theoretical framework in which she operates--what she believes about the good life, how people learn, and what they need to learn. In view of the responsibilities of the teaching role, these decisions that the teacher makes can have a far-reaching impact on the lives of all concerned. A conscious linkage between philosophical belief and teaching practice needs to be sought from the outset of one's professional preparation (66).

Teacher's attitudes affect teacher-pupil interaction. Attitudes are like expectations--they will be communicated to others and will have the potential for affecting pupils by functioning as a self-fulfilling prophecy (11).

Attitudes and beliefs control behavior, so our beliefs are revealed through our behavior. Therefore, one

of the most important things about a teacher is her belief about others. In knowing this one will know the teacher.

The purpose of this study is to determine whether a relationship exists between a teacher's philosophies of human nature and her behaviors in the classroom. If there is such a relationship and if one's philosophies of human nature can be changed, then this change in philosophies of human nature would bring about a change in the teacher's behaviors in the classroom.

Hypotheses

The following alternate hypotheses will be tested at the .05 level of significance in their null forms:

H_1: There will be a positive correlation between student teachers' beliefs that people are trustworthy and student teachers' accepting statements followed by student statements.

H_2: There will be a positive correlation between student teachers' beliefs that people are trustworthy and student teachers' prolonged accepting behavior.

H_3: There will be a negative correlation between student teachers' beliefs that people are trustworthy and student teachers' extended rejecting behavior.

H_4: There will be a negative correlation between student teachers' beliefs that people can control their outcomes and student teachers' prolonged teacher initiation.

H_5: There will be a positive correlation between student teachers' general positive or negative beliefs about substantive characteristics of human nature and student teachers' prolonged accepting behavior.

H_6: There will be a negative correlation between student teachers' general positive or negative beliefs about substantive characteristics of human nature and student teachers' extended rejecting behavior.

H_7: There will be a negative correlation between student teachers' general positive or negative beliefs about substantive characteristics of human nature and student teachers' prolonged teacher initiation.

H_8: There will be a positive correlation between student teachers' general positive or negative beliefs about substantive characteristics of human nature and extended pupil initiated talk.

H_9: There will be a positive correlation between student teachers' general positive or negative beliefs about substantive characteristics of human nature and extended pupil response to the student teacher or another pupil.

H_{10}: There will be a negative correlation between student teachers' general positive or negative beliefs about substantive characteristics of human nature and student teachers' rejection of pupil initiated talk.

H_{11}: There will be a positive correlation between student teacher's beliefs about the extent of individual

differences in human nature and student teachers' prolonged accepting behavior.

H_{12}: There will be a negative correlation between student teachers' beliefs about the extent of individual differences in human nature and student teachers' extended rejecting behavior.

CHAPTER II

PROCEDURE

Introduction

This chapter describes the procedures used by the investigator to collect the data in this study. The purpose of this study was to investigate the relationship between student teachers' views regarding the nature of man and their classroom verbal behaviors. In order to determine the extent of the relationship it was necessary to measure the philosophies of human nature and the verbal classroom practices of twenty-eight student teachers.

Design of the Study

Sample Selection

This study was conducted at Oklahoma State University in Stillwater, Oklahoma, during the spring semester, 1977. The sample was drawn from forty elementary education students enrolled in student teaching. Students enrolled in this course must have been admitted to the teacher education program at Oklahoma State University for at least one semester. Criteria for admission to the program include

satisfactory grades or scores on content examinations in the areas of English, mathematics, science, and social studies, satisfactory performance on a speech test, an overall grade point average of 2.0 (A=4.0), and a satisfactory personality for teaching. Admission to student teaching requires an overall grade point average of 2.3 with an average of 2.5 in specialized and professional education.

The student teaching semester was structured so that for the first eight weeks of the semester, on Tuesdays through Fridays, the subjects attended elementary methods courses in language arts, mathematics, reading, social studies, and science. On Mondays they observed in the public school classroom where they were to do their student teaching. The last eight weeks the students spent every school day in the public school classroom as student teachers.

The sample for this study was randomly selected by putting each of the forty student's names on a card, shuffling the cards ten times, transferring the names to a sheet of paper in the order of the cards and numbering them accordingly. By using the Table of Random Digits (55) the first twenty-eight numbers were selected. The students whose names were beside these twenty-eight numbers became the sample for this study.

Instrumentation

The philosophies of human nature of the participating student teachers were measured by eliciting their responses to the Philosophies of Human Nature Scale (PHN) (68). The student teachers' verbal behaviors were determined by the analysis of their behaviors as categorized by the Verbal Interaction Category System (VICS) (4). A description of these instruments follows.

Philosophies of Human Nature Scale

This scale, developed by Lawrence S. Wrightsman, Jr. (68), was designed to measure beliefs about human nature. The 84-item Likert-type scale provides six subscales composed of fourteen items each (see Appendix A). Subjects indicate their agreement or disagreement with each item by circling a number from +3 (strongly agree) to -3 (strongly disagree). For the study reported here separate scores from Subscales One and Two were used (see Appendix B). Scores from the six subscales can be summed to yield scores on other constructs (see Appendix B). The first four subscales can be summed to indicate a person's general positive or negative beliefs about substantive characteristics of human nature. This was used for the study and will be referred to as "7s" (see Appendix B). The last two subscales (five and six) can be summed to

indicate a person's beliefs about the extent of individual differences in human nature. This score was also used for the study and will be referred to as "8s" (see Appendix B).

Reliability and Validity of the PHN Scale

In 1960 a reliability study was done using 480 cadets at the Air Force Academy as subjects. These men were selected randomly from among those freshmen cadets who were taking introductory psychology during the 1968-1969 academic year. Cronbach's measure of reliability, coefficient alpha, was computed for each subscale, with the following results: trustworthiness, .78; strength of will and rationality, .63; altruism, .80; independence, .77; complexity, .69; and variability, .68. Of the four substantive subscales, the strength-of-will and rationality subscale rather consistently lacks the inter-item agreement present in the other subscales. The overarching conclusion, however, is that the subscales possess acceptable degrees of internal consistency (68).

Thirty-five subjects were retested to determine test-retest stability. All of the subscales except complexity produced good test-retest stability (that is, above .70). The subscale test-retest stability coefficients were as follows: trustworthiness, .74; complexity, .52; and variability, .84. When the scores from the substantive subscales were summed to give a positive-negative score, the

stability coefficient was .90. The stability of the multiplexity score, obtained by summing complexity and variability, was .86 (68).

The "construct validity" of the PHN can be assessed by determining if groups that should differ actually do differ in score. Because boys and girls are socialized differently in our society and because child-rearing practices are thought to be important determinants of the philosophies of human nature held by adults, one would expect men and women to differ in average PHN scores. If such differences occur, they offer evidence that the scale possesses construct validity. In heterogeneous samples (that is, samples that are not restricted by occupation or other value-related factors) the philosophies of human nature of men seem to be less favorable and less oriented toward individual differences than are women, who consistently reported a more positive view of human nature. Further evidence of sex differences was found in the PHN scores for eight freshman classes at Peabody College, tested between 1962 and 1971. In each class, the women's scores were more positive for trustworthiness, altruism, independence, and strength of will and rationality than were the men's scores, and in twelve of these 32 comparisons, the differences were statistically significant. Women had higher complexity scores and on the variability subscale, the women scored higher than did the men. All

of these findings confirm expectations and give some evidence for the construct validity of the PHN subscales (68).

The Verbal Interaction Category System

This system expands other interaction analysis systems in order to provide more detailed information. It has provisions for recording not only those times when the teacher accepts or rejects the ideas and feelings of the pupil, but also when he accepts or rejects the pupil's nonverbal behavior. The separation of acceptance and rejection into three dimensions (ideas, feelings and behaviors) allows for analysis of such subtle differences in teaching styles as that of a teacher skillful enough to accept a child's feelings while at the same time criticizing his ideas, thus correcting him on the cognitive level, on the one hand, and accepting him on the emotional or affective level on the other. The Verbal Interaction Category System (VICS) also includes categories for noting whether the student is responding to talk from the teacher or initiating statements to the teacher and has provision for noting whether the student is responding or initiating talk to another pupil (see Appendix C).

Ultimately, the category numbers are entered in a seventeen-row by seventeen-column table called a matrix (see Appendix D) that presents information clearly and succinctly about the type, sequence, and amount of verbal behavior that has occurred (4). Different parts of the

matrix indicate different kinds of classroom interaction (see Appendix D). For the purpose of this study only areas A, F, I, G, N, R and T will be examined.

Training of Observers

Two observers were used to collect the data for this study. One observer was a supervisor of elementary student teachers at Oklahoma State University and the other was this writer. Amidon and Hough (3) say that the ideal observer team consists of like-minded individuals who will respond consistently with the same category number when presented with the same communication events. Also, successful teaching experience, particularly in the elementary field, and previous experience in observing classrooms is a good recommendation (3). The two observers for this study had a combined total of twenty years teaching experience at the elementary level, were quite similar in philosophy and personal background, and both had previous experience in observing elementary student teachers.

Training in the use of VICS began by each observer memorizing the categories. Once these were learned so that responses were automatic, tapes of various teaching situations were used for practicing the tallying of categories. These tapes contained 75 different transcripts of elementary school classroom interactions in teaching activities of motivating, planning, informing, leading, discussing, disciplining, and evaluating. These transcripts were taken

from Amidon and Hunter (4). The observers listened to the tapes together and compared their categorization. Amidon and Hough (3) state that observers seem to learn faster working in teams of two as they can start and stop the playback and discuss each classification.

The observers spent a total of thirty-six hours in training to use the instrument. Each category was discussed in detail until the observers agreed on the exact meaning of each area. Considerable time was spent mastering the rhythm of marking a category every three seconds.

During the actual observations the observers were in daily contact and discussed the classroom interactions they were observing and how they were classifying these interactions.

Observer Reliability

Observer reliability was estimated by Scott's Coefficient. Scott's method is unaffected by low frequencies, can be adapted to percent figures, can be estimated rapidly in the field, and is sensitive at higher levels of reliability. Scott calls his coefficient "pi" and it is determined by the formula below (3):

$$\pi = \frac{P_o - P_e}{1 - P_e} \qquad (1)$$

P_o is the proportion of agreement between observations made of the same teacher by different observers and P_e is the proportion of agreement expected by chance which is

found by squaring the proportion of tallies in each category and summing these overall categories (3).

$$P_e = \sum_{i=1}^{k} P_i^2 \qquad (2)$$

In formula (2), there are k categories and P_i is the proportion of tallies falling into each category. In formula (1), "Pi" can be expressed in words as, "the amount that two observers exceed chance agreement divided by the amount that perfect agreement exceeds chance" (3).

Two reliability estimates were employed. The first was in March, before beginning the visits. The second was done in April, midway in the study (see Table I).

TABLE I

SUMMARY OF OBSERVER RELIABILITY DURING THE COURSE OF THE INVESTIGATION

March	April
.802	.924

Collection of the Data

Administering the Instrument

In January, 1977, during the second week of the semester, the chairman of the elementary education faculty administered the Philosophies of Human Nature Scale to every student enrolled in student teaching. Each copy of

the PHN Scale had a number on it so the students could be assured of their anonymity. A list was made with each student's name and number and placed in an envelope which was in turn sealed and deposited in a secure place. The PHN Scales were scored using only the numbers as identification. On the last day of the semester the envelope containing names and numbers was opened, the scores given to each student, and a brief explanation was given about the meaning of these scores.

Observing and Recording the Data

In March, 1977, during the second or third week of student teaching, each student teacher in the sample was observed once. In April or May, 1977, during the sixth or seventh week of student teaching, each student teacher was observed a second time by a different observer. Both observers recorded interactions for twenty minutes during each observation. Each student teacher was recorded for a total of forty minutes by two different observers using the VICS instrument.

Amidon and Hough (3) feel that reliable observation requires consideration of the total social situation being observed in order to understand the individual acts being classified. In the study each observer spent a minimum of ten minutes before recording the interactions so as to have an understanding of the atmosphere of the classroom and to

make sure she was in the best physical position to hear each interaction. Only language arts classes were observed because it was felt that this subject area had a more common interaction pattern.

A category was tallied every time the behavior changed and every three seconds for any behavior that lasted longer than three seconds. These tallies were written in a column, preserving their sequence, at the rate of approximately twenty tallies per minute on a form that was especially designed for this study (see Appendix D).

Scoring the Instruments

Responses to the PHN scale were hand scored using a desk calculator to find the sums. Data collected by the observers using the VICS were punched on IBM cards and tabulated on an IBM computer at the Oklahoma State University Computer Center.

Treatment of the Data

The hypotheses required a study of the relationships between twelve pairs of variables from the Philosophy of Human Nature Scale and the Verbal Interaction Category System. The statistical analysis required the determination of Spearman rank-order coefficients of correlation with the level of significance set at .05. The data were analyzed at the Oklahoma State University Computer Center using the SAS 762 program.

Scores from both the PHN and VICS were treated as ordinal data. The PHN scores were secured from summated ratings. The VICS area scores were counts within cells of a 17 by 17 matrix. All matrices had equal numbers of entries.

CHAPTER III

ANALYSIS OF THE DATA

The tabulated results of the data are presented in this chapter. They deal with the relationship between the philosophies of human nature of elementary school student teachers at Oklahoma State University and their verbal behaviors in the elementary classroom. Spearman rank order coefficients of correlations were used to express the degrees of relationship. The level of significance was set at .05.

The base data, which were analyzed at the Computer Center at Oklahoma State University, are shown in Tables II and III. The data are reported here to provide background information for the reader about the distribution of scores.

The number of questions or items for each subscale for the Philosophy of Human Nature Scale is shown in Table II. Also included are the means, standard deviations, and the ranges of scores represented by the sample. Do note that the means are for summed scores rather than for item means. The means of the items in each subscale

TABLE II

PHILOSOPHIES OF HUMAN NATURE SCALE

Subscale	Number of Items	Mean	Std. Dev.	Range
1. Trustworthiness	14	5.86	10.43	-8 to +28
2. Strength of Will	14	16.36	9.83	-4 to +34
7. General Beliefs	56	26.60	33.49	-43 to +96
8. Individual Differences	28	15.60	14.30	-14 to +48

TABLE III

VERBAL INTERACTIONS CATEGORY

Area	Mean	Std. Dev.	Range
A. Teacher Initiation	135.86	44.15	70 to 262
F. Teacher Accepting Behavior	10.46	6.00	0 to 20
G. Teaching Accepting Statements	29.82	12.07	10 to 56
I. Teacher Rejecting Behavior	8.46	11.13	0 to 49
N. Pupil Response	90.61	41.14	26 to 189
R. Teacher Reject Pupil Talk	9.79	9.64	0 to 38
T. Pupil Initiated Talk	19.46	14.40	2 to 64

can be secured by dividing the reported mean by the number of items in the subscale.

The data from the Verbal Interaction Category System include the means, standard deviations and ranges of recordings for each area. These data are reported in Table III.

The coefficients of correlations are reported in Table IV. Pertinent scores from the PHN Subscales, Trustworthiness, Strength of Will and Rationality, General Beliefs about Human Nature, and Beliefs about Individual Differences, were related to pertinent scores from the VICS areas of Teacher Initiation, Accepting Behavior of Teachers, Pupil Response, Teacher Rejection of Pupil Initiated Talk, and Pupil Initiated Talk.

Hypothesis 1 stated that there would be a positive relationship between Trustworthiness and Teacher Accepting Statements. The correlation was -.02. The null hypothesis was not rejected at the .05 level of significance. The relationship was negligible and in the opposite direction from which it was predicted by the theory.

Hypothesis 2 stated that there would be a positive relationship between Trustworthiness and Teacher Accepting Behavior. The correlation was -.05. The null hypothesis was not rejected and the relationship was in the opposite direction from which it was predicted by the theory.

Hypothesis 3 stated that there would be a negative correlation between Trustworthiness and Teacher Rejection

TABLE IV

COEFFICIENTS OF CORRELATION BETWEEN STUDENT TEACHERS' BELIEFS ABOUT HUMAN NATURE AND VERBAL BEHAVIORS IN THE CLASSROOM

Hypothesis	Predicted Direction	PHN	VICS	Correlation
1	+	Trustworthiness	Teacher Accepting Statements	-.02
2	+	Trustworthiness	Teacher Accepting Behavior	-.05
3	-	Trustworthiness	Teacher Rejecting Behavior	-.02
4	-	Strength of Will	Teacher Initiation	-.02
5	+	General Beliefs	Teacher Accepting Behavior	-.07
6	-	General Beliefs	Teacher Rejecting Behavior	.00
7	-	General Beliefs	Teacher Initiation	-.23
8	+	General Beliefs	Pupil Initiated Talk	-.39
9	+	General Beliefs	Pupil Response	.15
10	-	General Beliefs	Teacher Rejection of Pupil-Initiated Talk	.04
11	+	Individual Differences	Teacher Accepting Behavior	.19
12	-	Individual Differences	Teacher Rejecting Behavior	.13

Behavior. The correlation was -.02. The null hypothesis was not rejected and the relationship was negligible.

None of the hypotheses relating to Trustworthiness were significant at the .05 level of significance. In fact, two of the three had signs that were opposite of the predicted relationship.

Hypothesis 4 stated that there would be a negative correlation between Belief in Strength of Will and Rationality and Teacher Initiation. The Correlation was -.02. The null hypothesis was not rejected at the .05 level of significance. The relationship was negligible.

Hypothesis 5 stated that there would be a positive relationship between the General Beliefs about Human Nature and Teacher Accepting Behavior. The correlation was -.07. The null hypothesis was not rejected and the relationship was in the opposite direction from which it was predicted by the theory.

Hypothesis 6 stated that there would be a negative correlation between the General Beliefs about Human Nature and Teacher Rejecting Behavior. The correlation was .00. Naturally, the null hypothesis was not rejected at the .05 level of confidence.

Hypothesis 7 stated that there would be a negative correlation between the General Beliefs about Human Nature and Teacher Initiation. The correlation was -.23. The null hypothesis was not rejected and the relationship,

though in the predicted direction, was not great enough to be statistically significant.

Hypothesis 8 stated that there would be a positive correlation between the General Beliefs about Human Nature and Pupil Initiated talk. The correlation was -.39. The null hypothesis was not rejected since the relationship was in the opposite direction.

Hypothesis 9 stated that there would be a positive correlation between the General Beliefs about Human Nature and Pupil Response. The correlation was .15. The null hypothesis was not rejected and the relationship was minimal.

Hypothesis 10 stated that there would be a negative correlation between the General Beliefs about Human Nature and Teacher Rejection of Pupil Initiated Talk. The correlation was .04. The null hypothesis was not rejected.

None of the hypotheses relating to General Beliefs about Human Nature were significant at the .05 level of significance and four were in the opposite direction.

Hypothesis 11 stated that there would be a positive correlation between Beliefs about Individual Differences and Teacher Accepting Behavior. The correlation was .19. The null hypothesis was not rejected and the relationship was minimal.

Hypothesis 12 stated that there would be a negative correlation between beliefs about individual differences

and teacher rejecting behavior. The correlation was .13. The null hypothesis was not rejected. The relationship was minimal and in the opposite direction.

Neither of the hypotheses relating to individual differences was significant at the .05 level of significance and one was in the opposite direction.

Summary

None of the tests demonstrated a significant correlation in the predicted direction between the philosophies of human nature of elementary student teachers at Oklahoma State University and their verbal behaviors in elementary classrooms. For seven of the twelve hypotheses the relationships, though not significant, were in the opposite direction from that which was predicted by the theory.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to explore the relationship of elementary school student teachers' beliefs about human nature and their verbal behaviors in the elementary classrooms.

A random selection was made of twenty-eight elementary school student teachers from Oklahoma State University at Stillwater, Oklahoma, during the Spring Semester of 1977. The instruments used for this study were the Philosophies of Human Nature Scale (PHN) as developed by Wrightsman and the Verbal Interaction Category System (VICS) as developed by Amidon and Hunter.

The Philosophy of Human Nature instrument was administered to the sample at the beginning of the semester. At later times, while doing their student teaching in the elementary classrooms, these same student teachers were observed twice for a total of forty minutes by two observers. The student teachers' interactions with the pupils were systematically recorded, using the Verbal Interaction

Category System, every three seconds. The scores from the PHN instrument and the recordings from the VICS instrument were compared statistically. The direction and strength of relationships were expressed as Spearman rank order coefficients of correlations. On all statistical analyses, the .05 level of significance was used to reject the null hypotheses. All tests were one-tailed, as dictated by the theory that was developed by the writer.

None of the correlations demonstrated a significant relationship in the predicted direction between the philosophies of human nature of elementary student teachers at Oklahoma State University and their verbal behaviors in elementary classrooms.

Findings

The following are the findings resulting from the statistical analyses of the data:

The correlations that were secured to test Hypotheses 1, 2, 5, 6, 8, 10, and 12 were not significant and showed relationships that were opposite from the direction which was proposed by the theory

The correlation that was secured to test Hypothesis 8, General Beliefs and Pupil Initiated Talk, was not statistically significant and was in the opposite direction from the prediction. The relationship did show the greatest negative correlation of all the comparisons.

The correlation that was secured to test Hypothesis 11, Individual Differences and Teacher Accepting Behavior, was not statistically significant and showed the greatest positive correlation. It was in the same direction as the prediction.

The statistical analyses revealed that during the Spring Semester of 1977, at Oklahoma State University, at Stillwater, Oklahoma, there were no relationships between the philosophies of human nature of the sample of twenty-eight elementary school student teachers and their verbal behaviors in the classroom.

Conclusions

The theoretical basis for this study was that basic beliefs about human nature held by student teachers would influence these student teachers' interactions with pupils. It was predicted that there would emerge strong relationships between these student teachers' beliefs and their verbal behaviors with pupils. These relationships did not appear. This demonstrates that some of the assumptions underlying this study were faulty. There are several possible explanations for this.

One of these might be that, as seen in Table II, the student teachers' responses to the PHN peaked about the mean. Many of them apparently responded moderately, within the -1 to +1 range. For the subscales of Trustworthiness

and Strength of Will the possible range was 84. These ranges for this study were 36 and 38, respectively. The subscale of General Beliefs has the possible range of 336, but for this study the range was only 139. Individual Differences subscale has a possible range of 168 and 62 was the range for this study. Even though the student teachers were assured of anonymity of their responses to the PHN, perhaps they felt that these responses would have an effect upon their grades in the course, thus responding within a "safe" range.

Another possible explanation for the lack of a relationship is that most of the students in the sample had spent the past few years attending Oklahoma State University and knew what the "right" answers on the PHN might be, according to their professors. They may have been responding according to what they thought was expected rather than what they truly believed.

There is also the possibility that the area of teacher beliefs is so complex and intangible that the PHN instrument is not sufficiently sophisticated to act as an accurate measure of a prospective teacher's beliefs, and another method might be more reliable.

Another consideration is that the student teachers' beliefs changed after being measured by the PHN instrument. The six weeks of methods courses and the student teaching experience are just two of the possible explanations for this possible change.

Another factor that could be considered as a possible influence is the presence of the observer who brings with her a new element into the classroom. Her presence may alter, to a degree, the behavior pattern of the pupils and teacher. The student teachers might have structured their classes differently and responded differently in their interactions with pupils when an observer was present. This reaction may have been magnified by the fact that the observers were also the student teachers' supervisors.

Another consideration is that the observers used the VICS instrument to record the interactions of the student teachers and their pupils and perhaps this instrument is less specific than is needed. Error in a single category can be very high when the frequency of events in that category is low. Also, classroom behavior is difficult to record accurately and systematically for there may be several kinds of interactions occurring simultaneously in a classroom and any measuring procedure short of audio-visual recordings may well miss meaningful interactions. The length and number of observation sessions might influence the outcome of the study, also. While twenty minute observation sessions have been endorsed by the authors, Amidon and Hunter, it may be that a much longer period of observation is in order to obtain reliable measures of interaction. It is also possible that four or five observations might provide a better sampling of interactions in the classroom than only two.

Another speculation is that the student teachers' behaviors in the classroom were being affected by their cooperating teacher. Many student teachers feel they need to teach in the way that is acceptable to their cooperating teacher because it is their cooperating teacher's classroom and the student teachers are under their direction. Consequently, they put their own beliefs to the side during the time of student teaching.

As cited earlier, Hunt's study (37) showed that students in the Perkins School of Theology who believed that people in general were untrustworthy and selfish had higher ability scores, grade point averages, and ratings of effectiveness than those with a positive trustworthiness score. The study reported here showed that elementary student teachers at Oklahoma State University did not behave in the classroom as predicted by their beliefs. This may demonstrate that the beliefs of persons in the area of the ministry and elementary teaching have little to do with their effectiveness as ministers or teachers.

Implications for Further Research

This writer feels that further research is needed in the area of teacher beliefs and teacher behaviors. This could be done in a number of ways.

A study of the causes of certain teacher behaviors might use a sample of classroom teachers, rather than

student teachers, so there would not be the effects of the cooperating teacher and the lack of teaching experience present. One might use the criterion of a minimum of three years teaching experience for the sample.

A study of elementary school teachers' behavior in the classroom might be conducted by using video or audio recordings to measure teacher behavior rather than observers in the classroom. The taped recordings could be viewed and recorded by several persons, thus eliminating the interference of an observer in the classroom.

The area of teacher beliefs and teacher behaviors is such a complex, amorphous area that it needs a great deal of investigation to identify the causes and effects of beliefs and behaviors of teachers.

In this study there was no significant relationship between student teachers' beliefs, as measured by Wrightsman's Philosophy of Human Nature Scale and student teachers' behavior, as measured by Amidon's Verbal Interaction Category System. However, this was but one facet of the broader concern of teacher beliefs and behaviors.

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APPENDIXES

APPENDIX A

PHILOSOPHIES OF HUMAN NATURE SCALE AND SCORES

This questionnaire is a series of attitude statements. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree or disagree with matters of opinion.

Read each statement carefully. Then, on the separate answer sheet, indicate the extent to which you agree or disagree by circling a number by the number for each statement. The numbers and their meanings are indicated below:

If you agree strongly - circle + 3

If you agree somewhat - circle + 2

If you agree slightly - circle + 1

If you disagree slightly - circle - 1

If you disagree somewhat - circle - 2

If you disagree strongly - circle - 3

First impressions are usually best in such matters. Read each statement, decide if you agree or disagree and the strength of your opinion, and then circle the appropriate number on the answer sheet. Be sure to answer every statement.

If you find that the numbers to be used in answering do not adequately indicate your own opinion, use the one which is closest to the way you feel.

1. Great successes in life, like great artists and inventors, are usually motivated by forces they are unaware of.

2. Most students will tell the instructor when he has made a mistake in adding up their score, even if he had given them more points than they deserved.

3. Most people will change the opinion they express as a result of an onslaught of criticism, even though they really don't change the way they feel.

4. Most people try to apply the Golden Rule even in today's complex society.

5. A person's reaction to things differ from one situation to another.

6. I find that my first impression of a person is usually correct.

7. Our success in life is pretty much determined by forces outside our own control.

8. If you give the average person a job to do and leave him to do it, he will finish it successfully.

9. Nowadays many people won't make a move until they find out what other people think.

10. Most people do not hesitate to go out of their way to help someone in trouble.

11. Different people react to the same situation in different ways.

12. People can be described accurately by one term, such as "introverted," or "moral," or "sociable."

13. Attempts to understand ourselves are usually futile.

14. People usually tell the truth, even when they know they would be better off by lying.

15. The important thing in being successful nowadays is not how hard you work, but how well you fit in with the crowd.

16. Most people will act as "Good Samaritans" if given the opportunity.

17. Each person's personality is different from the personality of every other person.

18. It's not hard to understand what really is important to a person.

19. There's little one can do to alter his fate in life.

20. Most students do not cheat when taking an exam.

21. The typical student will cheat on a test when everybody else does, even though he has a set of ethical standards.

Be sure that you are on the right place on your answer sheet. You should be starting the top of the 2nd column now.

22. "Do unto others as you would have them do unto you" is a motto most people follow.

23. People are quite different in their basic interests.

24. I think I get a good idea of a person's basic nature after a brief conversation with him.

25. Most people have little influence over the things that happen to them.

26. Most people are basically honest.

27. It's a rare person who will go against the crowd.

28. The typical person is sincerely concerned about the problems of others.

29. People are pretty different from another in what "makes them tick."

30. If I could ask a person three questions about himself (and assuming he would answer them honestly), I would know a great deal about him.

31. Most people have an unrealistically favorable view of their own capabilities.

32. If you act in good faith with people, almost all of them will reciprocate with fairness towards you.

33. Most people have to rely on someone else to make their important decisions for them.

34. Most people with a fallout shelter would let their neighbors stay in it during a nuclear attack.

35. Often a person's basic personality is altered by such things as a religious conversion, psychotherapy, or a charm course.

36. When I meet a person, I look for one basic characteristic through which I try to understand him.

37. Most people vote for a political candidate on the basis of unimportant characteristics such as his appearance or name, rather than because of his stand on the issues.

38. Most people lead clean, decent lives.

39. The average person will rarely express his opinion in a group when he sees the others disagree with him.

40. Most people would stop and help a person whose car is disabled.

41. People are unpredictable in how they'll act from one situation to another.

42. Give me a few facts about a person and I'll have a good idea of whether I'll like him or not.

Check to see that you are on the right place on your answer sheet. You should be starting the top of the 3rd column now.

43. If a person tries hard enough, he will usually reach his goals in life.

44. People claim that they have ethical standards regarding honesty and morality, but few people stick to them when the chips are down.

45. Most people have the courage to their convictions.

46. The average person is conceited.

47. People are pretty much alike in their basic interests.

48. I find that my first impressions of people are frequently wrong.

49. The average person has an accurate understanding of the reasons for his behavior.

50. If you want people to do a job right, you should explain things to them in great detail and supervise them closely.

51. Most people can make their own decisions, uninfluenced by public opinion.

52. It's only a rare person who would risk his own life and limb to help someone else.

53. People are basically similar in their personalities.

54. Some people are too complicated for me to figure out.

55. If people try hard enough, wars can be prevented in the future.

56. If most people could get into a movie without paying and be sure that they were not seen, they would do it.

57. It is achievement, rather than popularity with others, that gets you ahead nowadays.

58. It's pathetic to see an unselfish person in today's world, because so many people take advantage of him.

59. If you have a good idea about how several people will react to a certain situation, you can expect most people to react the same way.

60. I think you can never really understand the feeling of other people.

61. The average person is largely the master of his own fate.

62. Most people are not really honest for a desirable reason; they're afraid of getting caught.

63. The average person will stick to his opinion if he thinks he's right, even if others disagree.

Check to see that you are on the right place on your answer sheet. You should be starting the top of the 4th column now.

64. People pretend to care more about one another than they really do.

65. Most people are consistent from situation to situation in the way they react to things.

66. You can't accurately describe a person in just a few words.

67. In a local or national election, most people select a candidate rationally and logically.

68. Most people would tell a lie if they could gain by it.

69. If a student does not believe in cheating, he will avoid if even if he sees many others doing it.

70. Most people inwardly dislike putting themselves out to help other people.

71. A child who is popular will be popular as an adult, too.

72. You can't classify everyone as good or bad.

73. Most persons have a lot of control over what happens to them in life.

74. Most people would cheat on their income tax if they had a chance.

75. The person with novel ideas is respected in our society.

76. Most people exaggerate their troubles in order to get sympathy.

77. If I can see how a person reacts to one situation, I have a good idea of how he will react to other situations.

78. People are too complex to ever be understood fully.

79. Most people have a good idea of what their strengths and weaknesses are.

80. Nowadays people commit a lot of crimes and sins that no one else ever hears about.

81. Most people will speak out for what they believe in.

82. People are usually out for their own good.

83. When you get right down to it, people are quite alike in their emotional makeup.

84. People are so complex, it is hard to know what "makes them tick."

Scores for the Philosophies of Human Nature Scale

Student	1	2	7	8
1	-3	+14	+14	+12
2	+9	+15	+32	+27
3	-1	-4	-43	+30
4	+11	+29	+52	+14
5	+7	+21	+27	+25
6	+13	+19	+72	+37
7	-5	+25	+28	+3
8	+16	+17	+32	-8
9	+10	+17	+28	+16
10	-2	-2	-31	+4
11	+21	+8	+54	+7
12	-8	+11	-8	-14
13	-1	+15	+12	+16
14	-1	+23	+21	+16
15	+28	+30	+96	+9
16	-3	+11	+12	+30
17	+17	+27	+81	+7
18	-5	+11	0	+30
19	+27	+19	+64	+48
20	-7	+15	+11	+26
21	+3	+12	+29	+19
22	+11	+6	+21	-5
23	+13	+15	+45	-3
24	-7	-1	-18	+13
25	+11	+34	+34	+5
26	-5	+16	+38	+23
27	+1	+21	-24	+24
28	+14	+34	+66	+26

APPENDIX B

PHILOSOPHIES OF HUMAN NATURE SUBSCALES

The six subscales are:	Range
1. Trustworthiness versus untrustworthiness + = belief that people are trustworthy, and responsible - = belief that people are untrustworthy, immoral, and irresponsible	+ 42 to - 42
2. Strength of will and rationality versus lack of willpower and irrationality + = belief that people can control their outcomes and that they understand themselves - = belief that people lack self-determination and are irrational	+ 42 to - 42
3. Altruism versus selfishness + = belief that people are altruistic, unselfish, and sincerely interested in others - = belief that people are selfish and self-centered	+ 42 to - 42
4. Independence versus conformity to group pressures + = belief that people are able to maintain their beliefs in the face of group pressures to the contrary - = belief that people give in to pressures of group and society	+ 42 to - 42
5. Complexity versus simplicity + = belief that people are complex, complicated, and hard to understand - = belief that people are simple and easy to understand	+ 42 to - 42
6. Variability versus similarity + = belief that individuals are different from one another in personality and interests, and that a person can change over time - = belief that people are similar in interests and that they do not change over time	+ 42 to - 42

7_S The first four subscales (T, S, A, and I) can be summed to give a positive-negative score (range +168 to -168), indicating a person's general positive or negative beliefs about substantive characteristics of human nature.

8_S The last two subscales (C and V) can be summed to give a multiplexity score (range +84 to -84), indicating a person's beliefs about the extent of individual differences in human nature.

APPENDIX C

THE CATEGORIES FOR THE VERBAL INTERACTION CATEGORY SYSTEM AND RECORDINGS

Teacher-Initiated Talk

1. Gives Information or Opinion: presents content or own ideas, explains, orients, asks rhetorical questions. May be short statements or extended lecture.
2. Gives Direction: tells pupil to take specific action; gives orders; commands.
3. Asks Narrow Question: asks drill questions, questions requiring one or two word replies or yes-and-no answers; questions to which the specific nature of the response can be predicted.
4. Asks Broad Question: asks relatively open-ended questions which call for unpredictable responses; questions which are thought-provoking. Apt to elicit a longer response than 3.

Teacher Response

5. Accepts:
   - (5a) Ideas: reflects, clarifies, encourages or praises ideas of pupils. Summarizes, or comments without rejection.
   - (5b) Behavior: responds in ways which commend or encourage pupil behavior
   - (5c) Feeling: responds in ways which reflect or encourage expression of pupil feeling.
6. Rejects:
   - (6a) Ideas: criticizes, ignores or discourages pupil ideas.
   - (6b) Behavior: discourages or criticizes pupil behavior. Designed to stop undesirable behavior. May be stated in question form, but differentiated from category 3 or 4, and from category 2, Gives Direction, by tone of voice and resultant effect on pupils.
   - (6c) Feeling: ignores, discourages or rejects pupil expression of feeling.

Pupil Response

7. Responds to Teacher
   - (7a) Predictably: relatively short replies, usually, which follow category 3. May also follow category 2, i.e., "David, you may read next."
   - (7b) Unpredictably: replies which usually follow category 4.
8. Responds to Another Pupil: replies occurring in conversation between pupils.

Pupil-Initiated Talk

9. Initiates Talk to Teacher: statements which pupils direct to teacher without solicitation from teacher.

10. Initiates Talk to Another Pupil: statements which pupils direct to another pupil which are not solicited.

Other

11. Silence: pauses or short periods of silence during a time of classroom conversation.

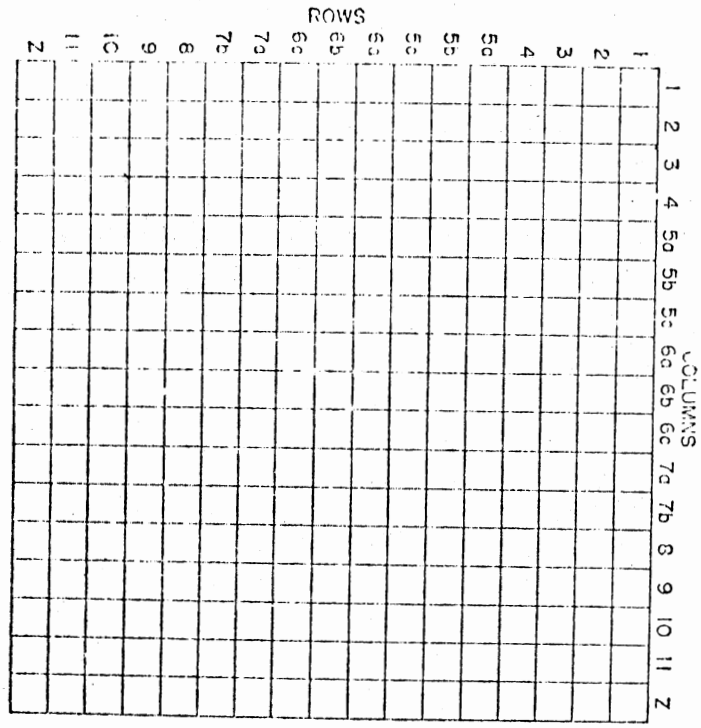
Z. Confusion: considerable noise which disrupts planned activities. This category may accompany other categories or may totally preclude the use of other categories.

Recordings from the Verbal Interaction Category System

Student	A	E	G	I	N	R	T
1	183	14	18	0	189	1	21
2	148	13	27	2	88	1	22
3	179	20	55	0	37	1	64
4	95	8	41	2	116	5	17
5	168	17	23	1	69	4	14
6	120	9	19	14	110	16	37
7	160	6	29	6	38	3	17
8	262	12	21	0	77	0	14
9	125	19	30	1	80	0	5
10	185	4	32	5	94	2	3
11	104	8	38	9	126	7	11
12	101	17	38	0	147	3	59
13	212	7	10	2	26	8	13
14	138	8	14	13	82	15	24
15	107	4	25	29	96	22	16
16	89	20	56	3	88	10	13
17	103	17	38	4	124	6	17
18	86	2	22	10	131	13	18
19	96	9	43	10	150	9	11
20	161	14	40	6	52	10	28
21	70	0	21	28	142	37	7
22	73	2	44	0	86	7	16
23	132	10	28	2	44	6	7
24	120	4	24	49	56	38	33
25	144	5	12	8	116	10	15
26	151	10	42	10	52	16	23
27	130	15	24	19	93	15	18
28	162	19	21	4	28	9	2

APPENDIX D

MATRIX FOR THE VERBAL INTERACTION CATEGORY SYSTEM AND RECORDING SHEET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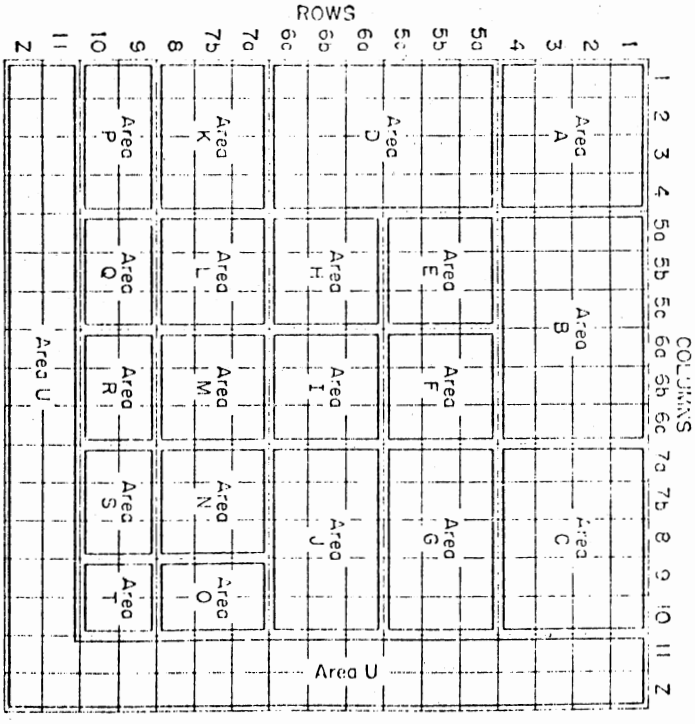
COLUMNS
1 2 3 4 5a 5b 5c 6a 6b 6c 7a 7b 8 9 10 11 Z


ROWS
1 2 3 4 5a 5b 5c 6a 6b 6c 7a 7b 8 9 10 11 Z
COLUMNS
1 2 3 4 5a 5b 5c 6a 6b 6c 7a 7b 8 9 10 11 Z
Area A
Area B
Area C
Area D
Area E
Area F
Area G
Area H
Area I
Area J
Area K
Area L
Area M
Area N
Area O
Area P
Area Q
Area R
Area S
Area T
Area U
Area U

Explanation of Areas Within the Matrix in the VICS

Area A - This is the area of prolonged teacher initiation, and includes presenting information or opinion, giving directions and asking questions. The major characteristic of this area is that the teacher is speaking for a relatively long period. This is not an area which shows interaction between pupil and teacher.

Area B - The cells in this area indicate teacher initiated statements followed by teacher response statements, either accepting or rejecting.

Area C - This group of cells includes all pupil talk which follows teacher initiated talk.

Area D - Area D indicates teacher response statements followed by teacher initiated statements.

Area E - This area indicates prolonged accepting behavior on the part of the teacher. This includes extended acceptance of ideas, behavior and feelings, as well as transitions from one of these verbal patterns to another.

Area F - These cells indicate teacher accepting behavior followed by teacher rejecting behavior.

Area G - This area shows accepting teacher statements followed by any student statements.

Area H - Area H indicates rejecting behavior followed by teacher accepting behavior.

Area I - These cells indicate extended rejecting behavior on the part of the teacher. Rejection of ideas, behavior and feelings are indicated here, as well as transition from one of these behaviors to another.

Area J - These cells show all pupil statements which follow teacher rejecting statements.

Area K - This area indicates pupil response behavior followed by teacher initiated behavior.

Area L - This group of cells show student response followed by teacher acceptance.

Area M - Area M shows teacher rejection of pupil responses.

Area N - These cells show extended student response to either the teacher or another pupil.

Area O - Area O indicates pupil response statements followed by pupil initiated statements.

Area P - These cells indicate pupil initiated behavior followed by teacher initiated behavior.

Area Q - This area shows pupil initiated talk followed by teacher acceptance.

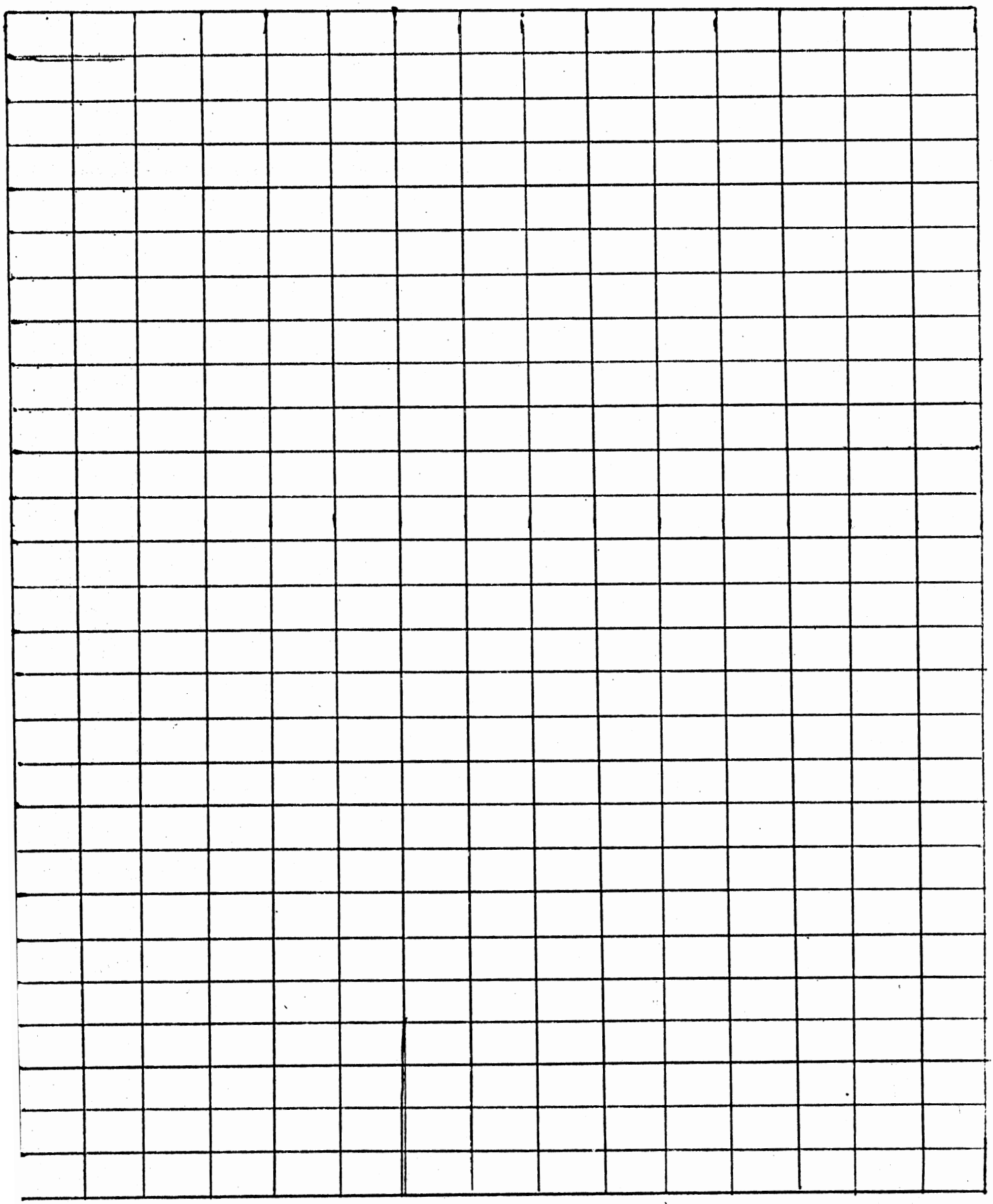
Area R - Area R indicates teacher rejection of pupil initiated talk.

Area S - These cells indicate pupil initiated statements followed by student response statements.

Area T - This area indicates extended pupil initiated talk to either the teacher or another pupil.

Area U - Area U indicates silence or confusion. If the tallies are in row or column 11 they indicate silence, and if they are in row or column Z, they indicate confusion. Tallies in column 11 or Z represent silence or confusion following teacher or pupil talk, while tallies in rows 11 or Z represent silence or confusion after pupil or teacher talk.

Recording Sheet



VITA

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Candidate for the Degree of

Doctor of Education

Thesis: AN INVESTIGATION INTO RELATIONSHIPS BETWEEN STUDENT TEACHERS' PHILOSOPHIES OF HUMAN NATURE AND THEIR VERBAL BEHAVIORS IN ELEMENTARY CLASSROOMS

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